LALIT NARAYAN MITHILA UNIVERSITY

Kameshwar Nagar, Darbhanga.

Agricultural Financing and Rural Development in Bihar: A Case Study of East Champaran District, 1990-2020

Synopsis Submitted

For The Award of The Degree of

Doctor of Philosophy (Ph.D)

In

Economics

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March 2024

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INTRODUCTION

East Champaran, known as the cradle of ancient civilizations with its fertile plains, is brimming with potential for an agricultural boom. However, its farming landscape reveals a stark paradox. Despite its abundant natural resources and a workforce deeply rooted in agricultural traditions, East Champaran faces challenges in harnessing this potential to fuel substantial agricultural growth and rural prosperity. A critical missing element in this conundrum is the provision of efficient and inclusive financial services to farmers and individuals involved in related sectors. It is at this juncture that the complex relationship between the socio-economic position of farmers and agricultural financing becomes crucial.

This research examines the financial reforms in Bihar following India's economic liberalization and their effects on agricultural financing in East Champaran. A case study method allows for an in-depth analysis of the financing for agriculture and related sectors in East Champaran. The selected timeframe spans three decades since the liberalisation of the Indian economy. Through this extensive period and detailed perspective, the study seeks to dissect the intricacies of agricultural financing and development. Furthermore, the research will elucidate the function of financing within the stratified and inflexible social structure of rural Bihar, marked by class and caste divisions. It has also been noted that small and marginal farmers struggle to access institutional credit. Moreover, the study will explore how public sector banks operate and finance in light of increasing private financing sources. Understanding how public and private financing sources interact for agriculture and related sectors in Bihar's rural areas will be particularly intriguing. Additionally, the study will assess the effects of significant reforms such as financial sector liberalization, privatization, and technological progress on agricultural finance. This will involve exploring the rise of new financial entities, microfinance efforts, and digital access platforms. The study will also explore ongoing challenges like limited credit penetration, informal lending practices, and a deficiency in financial literacy. In contrast, we will highlight the potential of innovative

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financial products, risk mitigation strategies, and farmer-focused methods to narrow the credit divide and strengthen rural communities in East Champaran.

Drawing on insights from East Champaran, we aim to extrapolate broader policy implications for India's agricultural sector. Our recommendations will focus on enhancing financial inclusion and property rights, promoting agro-processing industries in rural locales, and nurturing a dynamic rural economy. The study intends to transcend mere statistical and economic models by conducting a heuristic analysis. To achieve this, we will utilise a primary survey as our main descriptive and analytical tool, ensuring that it covers the often-unheard voices of rural financiers. Our exploration will delve into how access to credit—or its absence—impacts their daily lives, their aspirations for their children, and their vision for the future of East Champaran's agricultural vista. The study embarks on a journey to decipher the transformative impact of finance in unleashing East Champaran's agrarian sector's vast potential. It will evaluate the triumphs and challenges of various institutional and non-institutional financing sources in the district's rural locales. Consequently, this research contributes to the broader discourse on sustainable development, ruralemployment & empowerment, and forging a prosperous agricultural future for East Champaran and beyond.

Rural development has a long history in India. Even passing of the India cooperative societies act in 1904 was taken as a measure of rural development. Legislation regarding tenancy right and rents, consolidation of land holdings, regulation of money lending and marketing of agriculture products can be taken as rural development measures. Rural development means the method of enhancing quality of life and economic well-being of the population living in villages. Rural development has been in the core focus area of economic development since independence. Agricultural financing and rural development are crucial aspects of Bihar's economy . The Government of Bihar has implemented various schemes and programs to support agricultural financing and rural development. such as Kisan Credit Card (KCC) provide farmers with access to affordable credit for agricultural and allied activities. Additionally, banks and financial institutions offer loans at subsidized interest rates to farmers.These include subsidies on fertilizers, seeds, and agricultural equipment, as well as incentives for adopting modern farming techniques, organic farming, and livestock rearing.

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Over the years, rural development has emerged as a strategy designed to improve the economic and social life of rural people. According to 2011 census, approximately 68.86 per cent population residing in rural areas. This huge rural population needs special attention. If we ignore this chunk of population or if we do not provide development opportunity to them, then we should not dream to become a developed nation in coming decades. In Bihar, according to census 2011, 88.71 percent population living in rural areas. The proposed work will explore the rural development strategies and policies and its evaluation in East Champaran district. This district has highest rural population in Bihar. Hence it will provide us a great opportunity to explore rural areas of this district.

This introduction acts as a guide for the subsequent parts of the study. Each part will explore in greater detail the particular elements mentioned previously, creating an extensive portrayal of the intricate link between socioeconomic factors, economic development, and agricultural financing in East Champaran.

LITERATURE REVIEW

This section will analyse the findings from the literature to identify research gaps and legitimize the relevance of the current study.

1. Pandit, A., Pandey, N. K., Lal, B., Chandran, K. P., & Rana, R. K. (2007). Financing agriculture: a study of Bihar and West Bengal potato cultivation. Indian Journal of Agricultural Economics, 62(3). After perusal of this article we came across to these findings. Institutional finance plays an important role in the adoption of modern technology and in increasing private capital investment in agriculture. Moreover, the elasticity of input use to agriculture credit was close to unity indicating the significant contribution of institutional credit in promoting modern production technology for increasing productivity and production. Institutional finance has even a greater role to play in a country like India where 80 per cent of the farmers are small and marginal who operate 40 per cent of land and are unable to generate enough farm surpluses and re-invest due to their low level of income. Moreover, introduction of modern technology in

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agriculture has led to intensive use of inputs and the package of practices, resulting in manifold increase in the requirement of production credit. However, the institutional agricultural credit delivery system is faced with some problems which restrict its outreach to different states and sections of farming classes. The share of agricultural credit to total credit declined from 20.5 per cent to less than 10 per cent by March 2003. Moreover, NSSO Survey (2003) showed that, of the total cultivator households (89.35 million), the coverage by formal sector is only 27 per cent.

2. Sinha, R., Kumari, T., & Singh, R. (2022). Assessing the Role of Credit on Agricultural Growth in Bihar. Economic Affairs, 67(4), 511-517. After reading this piece of work I found these insights about role of credit in agricultural development. Brief of findings are given here. Credit is an important factor that could influence the use of fixed and variable factors in the agriculture production system. A healthy credit system is responsible for the economy's growth, which ensures that in lack of money, neither the supply nor the demand gets affected. The current study explores the role and status of credit to agriculture in Bihar. It assumes importance as the state has around 96 percent of marginal and small holdings and faces the vagaries of weather with recurrent floods, especially in the northern part of it. The study uses secondary data for the purpose of analyzing the growth of institutional credit flow in Bihar. Further, to analyze the credit delivery system in agriculture in Bihar, data from NSS 77th round survey (2021) is used. Results reveal the presence of institutional and non-institutional agencies in Bihar's credit delivery system. The study also uses a multiple linear regression model to assess the role of credit in the agricultural growth of Bihar. The model reveals a significant positive relationship between agricultural production and credit which states the significance of credit to Bihar's agricultural growth.
3. Bharti, N. (2018). Evolution of agriculture finance in India: A historical perspective. Agricultural Finance Review, 78(3), 376-392. Lack of access to finance is one of the major contributing to low profitability in agriculture. Various policy interventions were performed for promoting access to finance. However, access to finance always remained one of the biggest challenges to Indian policymakers. The purpose of this paper is to explore the policy interventions in the areas of agriculture finance. The study concludes that many of the interventions of today were earlier

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experimented or proposed in the past but, due to some or the other reason those, interventions were not successful. The study concludes that if those interventions had been implemented that time, it would have taken India in one of the tops in the list of financial inclusion.

4. Bansil, P. C. (2011). Bihar agriculture: A perspective. Concept Publishing Company. Indian agriculture is at cross roads today. Green revolution forerunner states like Punjab & Haryana are suffering from technology fatigue and are faced with the second-generation problems. Bihar is the first state which had a prosperous sugar industry and first agriculture research institute. This state has rich resources for a dynamic agricultural growth. It has untapped as well as unexploited potential, not only in major crops, but also in horticulture, fisheries as well. Bihar is a 'Sleeping Lion' and can feed the whole of India. In fact, agriculture in Bihar, is presently being included in the backward category though there exist immense scope for an accelerated growth with proper crop diversification.
5. Sen, B., Venkatesh, P., Jha, G. K., Singh, D. R., & Suresh, A. (2017). Agricultural diversification and its impact on farm income: a case study of Bihar. Agricultural economics research review, 30(conf), 77-88. This paper has assessed the diversification scenario of agriculture at the national level and its reflection at farm level situation alongside. It has been observed that concentration ratio (*CR*4) for four major agricultural sub-sectors has declined from 73.6 per cent to 69.6 per cent for the study period, 1999–00 to 2013–14. It clearly indicates a shift in Indian agriculture from cereals-based production pattern to other high-value based production pattern. However, Simpson Index for Diversification (SID) indicates that the average national SID for all agricultural enterprises is 0.83 which spans from 0.60 for Punjab to 0.89 for Karnataka. Relating it to farm level situation, the primary survey in Banka and Bhagalpur districts of Bihar has been carried out in 2016–17 to find out the impact of agricultural diversification on farm income with two-stage least square technique (2SLS). Empirical analysis has suggested that diversification of farm by adopting ancillary, horticulture and other HVE like mushroom, etc. will increase farm income.
6. Kumar, S., & Shrivastava, R. P. Various Aspects of Agricultural Credit Policy in Bihar. Parisheelan Vol.-XIV, No.- 4, 2018, ISSN 0974 7222, 435-442. The Agricultural Credit

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Policy in Bihar essentially lays emphasis on augmenting credit flow at the ground level through credit planning, adoption of region-specific strategies, rationalization of lending policies and procedures and bringing down the cost of borrowing. In Bihar Bank credit is available to the farmers in the form of short-term credit for financing crop production programmes and in the form of medium-term/long–term credit for financing capital investment in agriculture and allied activities like land development including purchase of land, minor irrigation, farm mechanization, dairy development, poultry, animal husbandry, fisheries, plantation, and horticulture. Loans are also available for the farmer of Bihar for storage, processing and marketing of agricultural produce. In Bihar as well as in India a multi -agency approach comprising co-operative banks, scheduled commercial banks and RRBs has been followed for purveying credit to agricultural sector. In Bihar the policy of agricultural credit is guided mainly by the considerations of ensuring adequate and timely availability of credit at reasonable rates through the expansion of institutional framework, its outreach and scale as also by way of directed lending. Over time, spectacular progress has been achieved in terms of the scale and outreach of institutional framework for agricultural credit.

7. Sinha, J. K. (2022). Public Expenditure for Agricultural Development & the Economic Growth of Bihar (1981-2019). Asian Journal of Economics & Finance, 4(4), 414-424. This study explores the relationship between public expenditure on the agricultural sector and economic growth in the agriculturally underdeveloped states of Bihar over the period 1981 2019. In estimating the longrun model, first, the time series characteristic of the data is tested using ADF and the PhillipsPerron tests. Then, the Johansen cointegration test was conducted. Both The longrun and shortrun estimate result shows that public spending on the agricultural sector has a significant effect on the per capita real GDP. This study revealed that government spending on the agricultural sector has an insignificant effect both in the long run and shortrun periods. While agriculture is the dominant sector and the majority of rural society is engaged in this sector, hence it needs to reduce unproductive government consumption expenditure and give attention to redirecting to productive activities. This will stimulate activities in the economic sectors and, perhaps, converse the insignificant effect on economic growth. The gross fixed capital formation has a positive and significant impact on per capita real GDP in Bihar

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during the period under review. This result seems to imply that the government should have to build up capital stock by the accumulation of capital formation regularly to improve the per capita real GDP. The labor force has an insignificant effect on the growth of per capita real GDP. Hence, improving the productivity of the labor force through technical and vocational training should have to be a prominent task.

8. Salam, M. A., Anwer, M. E., & Alam, M. S. (2013). Agriculture and the economy of Bihar: An analysis. International Journal of Scientific and Research Publications, Volume 3, Issue 11, November 2013 ISSN 2250-3153. The state of Bihar was reorganised on November 15, 2000 with 38 districts, 9 divisions, 101 sub-divisions, 533 blocks and 45,098 villages (Census, 2001). Bihar is the third most populous state and 12th largest state in terms of geographical area of about 94.2 thousand square kilometres (Census, 2001). It is divided by river Ganges into two parts i.e., (I) North Bihar with an area of 53.3 thousand sq. kms and (II) South Bihar with an area of 40.9 thousand sq. kms. After the bifurcation of the state, agriculture has become more important because all the rich mineral resources have gone to the state of Jharkhand. The state is left with residual natural resource endowment such as; cultivable land, fertile soil and abundant water. Due to this the economy of Bihar is mainly based on agricultural and allied sectors. After the bifurcation of Bihar, the growth rate in terms of both GSDP and NSDP showed remarkable increase in almost all sub-sectors as compared to pre-bifurcation period. However, agriculture and allied sector has accounted miserable growth rate as compared to industrial and services sector. The share of agriculture and allied sector has declined from 46.70 percent to 26.51 percent during 1990-91 to 2008-09. Despite sharp decline of its share in NSDP, agriculture still plays a vital role in the development of Bihar. The urgent need of the hour is to increase Investments in rural infrastructure for water management/soil conservation/ construction of roads to link rural area with urban area etc. With appropriate technology, infrastructure and policy support, it is possible to reverse the declining trend in food grain production and check the migration of the people from Bihar to other states.

9. Singh, A. K., Rajput, J., Rai, A., Gangwar, A., Shahi, B., Sharma, R. B., ... & Rai, V. K. (2020). Socio-economic upliftment of farmers through model irrigated village approach in East Champaran (Bihar), India: A case study. Journal of Applied and Natural

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Science, 12(4), 556-559. In India, the precious freshwater resources are becoming scarcer due to the climate change effect coupled with their inappropriate planning and management at the field level. Development of water resources and sensitization of farming community/irrigators towards effective utilization of these resources is need of the hour and it is one of the most important factors in conservation and preservation water resources for future requirements. This case study has highlighted the direct and indirect benefits derived by implementation of National Innovations on Climate Resilient Agriculture (NICRA) scheme in Nawada, a village of the district East Champaran in Bihar state initiated by Krishi Vigyan Kendra, Piprakothi, East Champaran under Dr. Rajendra Prasad Central Agricultural University, Pusa, Bihar. Two groups of farmers of the village was chosen to evaluate the benefits derived from this scheme. Under this scheme, tube-wells were developed to facilitate assured irrigation. This study revealed that the total savings of approximate Rs.10,000 ($140) per hectare to irrigate wheat crop three times in Rabi season was achieved over conventional irrigation system. This scheme has also resulted in other intangible benefits which included a reduction in pollution, an increase in the number of crops- *rabi* , *kharif* and *zaid* seasons and adequate time to carryout out other farm operations.

10. Bista, D. R., Kumar, P., & Mathur, V. C. (2012). Progress and performance of kisan credit card scheme with a case study of Bihar. Agricultural economics research review, 25(1), 125-135.The performance of Kisan Credit Card (KCC) scheme in India has been studied by finding its share in the total amount of loan disbursed to agriculture. The flow of credit through KCCs has been investigated from three types of financial institutions, viz. cooperative banks, regional rural banks and commercial banks in terms of total loan amount, enrolement of membership and amount per card. Region-wise study has revealed a wide disparity in the performance of these institutions. The case study of Bihar has depicted a similar picture with a vast disparity across different districts of the state in terms of amount, number of cards and amount per card. The gross returns and consequently net margins have been found higher for KCCbeneficiary than non-beneficiary farmers. The factors influencing the adoption of KCC scheme and constraints perceived by the farmers have been identified. Some measures have also been suggested to attract more farmers towards the scheme.

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The literature review indicates that collateral guarantees have played a crucial role in providing financial access to the agricultural sector and related fields. The widespread presence of small and marginal farmers has been unable to meet the necessary collateral requirements. Furthermore, the widespread lack of financial literacy has posed a significant barrier. Nonetheless, the literature has consistently acknowledged the importance of finance for the agricultural sector and related industries, particularly agro-processing industries, in the economic growth of rural Bihar.

OBJECTIVES

The study has the following objectives

1. The study aims to find the sources of financing in rural Bihar with special reference to East Champaran.
2. It is to investigate the socio-economic parameters that decide the allocation of finances in rural areas.
3. It is to assess the current landscape of financing of Agriculture and allied activites in East Champaran .
4. It aims to develop a comprehensive framework for reforming agricultural financing in East Champaran .

Hypotheses

1) Financing of Agriculture and allied sectors has led to economic development in rural areas of East Champaran.
2) The socio-economic parameters has determined the Financing of Agriculture and Allied activities in East Champaran

METHODOLOGY

The proposed study will be based on analytical and empirical/statistical review of data and literature collected from both primary and secondary sources. We shall use analytical methods to understand the role of financing for the development of agriculture and allied sectors. The socio-economic indicators are deciphers to know the demographic

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implications of financing in rural Bihar since 1990s. Statistical methods will be used to estimate the linkages of financing and development. It will specify the research design as a mixed-methods approach, combining quantitative and qualitative data collection techniques.

Sources of Data:

Primary Source: A mixed-methods approach, combining quantitative and qualitative data collection techniques. Surveys with farmers, agricultural entrepreneurs, and bank officials (using stratified random sampling) will be used to gather data on access to finance, loan utilisation, repayment rates, and perceived impact of reforms.

Secondary Source: Relevant and concerned books, Journals articles, report, seminar papers, several Magazines and Newspapers.

TENTATIVE CHAPTERS

1) **Introduction**

It will deal with the definition and concepts of rural financing. The chapter will also present the role of financing in development of agriculture and allied sectors. Further it will analyze the relevance of the case study of East Champaran for Bihar.

2) **Review of the Literature**

It will provide a descriptive and analytical survey of literatures to find the research gap pertaining to the role of financing in the development of agriculture and allied sectors. It will also find out the socio-economic determinants of financing in rural Bihar.

3) **Data Sources and Research Methodology**

The proposed study will be based on analytical and empirical/statistical review of data and literature collected from both primary and secondary sources.

4) **Financing Sources for Agriculture and Allied Activities in Bihar**

This chapter investigates the financial sources for the Agriculture and allied sectors in Bihar, specifically focusing on East Champaran. It delves into various institutional and non-institutional sources to delineate and scrutinize these financial channels.

5) **The Socio-Economic Determinants of Financing in rural Bihar**

The study will concentrate on the socio-economic factors and their influence on accessing both institutional and non-institutional financial sources in Bihar. It will analyse the distribution of the financial shares among different population segments, with particular emphasis on East Champaran.

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6) **The Role of Financing in Agriculture and Allied Sectors for the Rural Development of East Champaran**

This chapter explores the impact of financing on economic growth in rural Bihar, with a particular emphasis on East Champaran. It examines the contribution of agro-processing industries and related sectors to determine their allocation shares and to assess the efficiency of each. The criteria for economic development considered here include employment, income, savings, and quality of life.

7) **Conclusion and Recommendation**

The study will endeavour to encapsulate the principal conclusions of the research. It will also offer recommendations to transform rural Bihar, especially East Champaran, into a focal point for institutional finance. The significance of financing in achieving this goal will be particularly emphasized.

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